# Changing Technology in a Challenging World

Jeff Holmes
Senior Vice President

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Leveraged Intelligence

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# The Changing & Challenging Environment

- Increased focus on customer service and customer expectation management
- Resource and capacity constraints must be optimized to gain efficiency and effectiveness
- Planning and execution….a blurring of the lines!
- Big BANG versus focused and managed programs that deliver results …. Rapidly !!
- Utilize commercial best practice and technical solution templates

# The Mission

Supply

- Improved customer Service
- Faster more accurate fulfillment
- Cost reductions


Demand

- Improved cash cycle
- Increased revenues
- Stronger market positions

- Overall cross-enterprise value chain optimization
- Real-time, continuous demand planning with service and pricing impact considerations
- Optimized fulfillment on true demand patterns
- Revenue and budget optimization and increased profits

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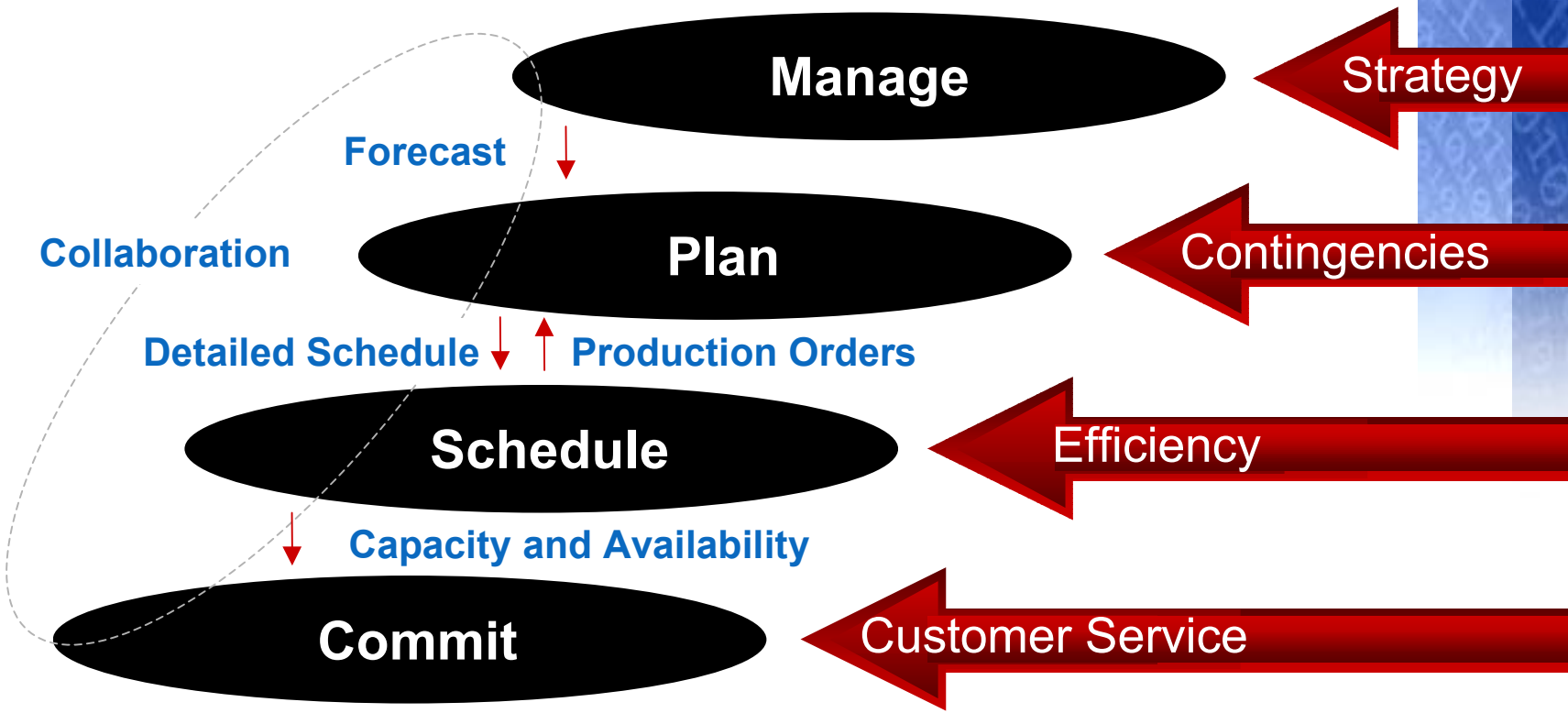
# Supply Chain Management

Supply chain planning and execution continue to be the “heart” of operational effectiveness and efficiency.




Solutions such as CPFR, VMI, agile manufacturing and distributed order management are driven by core planning engines and enhanced with SRM,S&PM and MRO capabilities.

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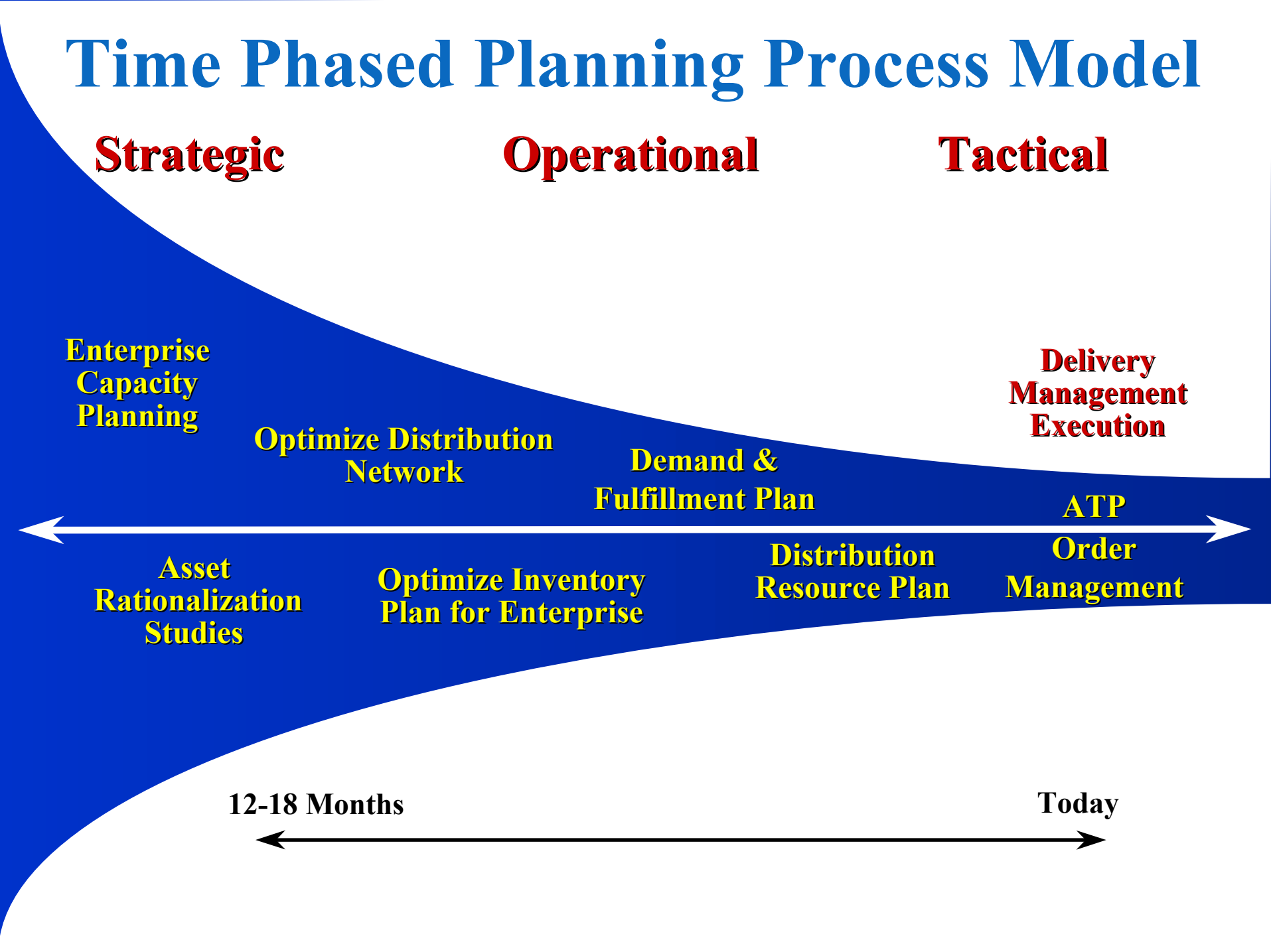
# Time Phased Planning Process Model



# Time Phased Collaboration

- Collaborative Commerce is changing the rules
- Business enterprises have to adopt new management techniques and technology solutions to collaborate with suppliers and customers
- Its all about "networked enterprises" doing business as single entities while continuing to respect individual corporate boundaries
- Collaborative commerce delivers huge benefits, many of which have yet to be determined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# Technology Enablement

Work In Progress

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# Direction of the Commercial Market

## 1994-1999:

*Gain Control of Data*

- Surge in installation of packaged ERP systems with objective of "one system"
- "One system" does not solve business application needs of Fortune 1000
- Other data repositories such as CRM begin to emerge

## 1997-2000:

*Advent of the Internet*

- Dramatic improvements in information flow
- Companies discover power of inter-enterprise interactions
- Public exchanges rise and fall with private trading networks proving to be the "sleeper"

## 2000 and Beyond:

*Use the Data and Technology to Drive Business Value*

- Application portfolios of Planning and Event Management become standard practice
- Companies that are the most successful have master the "art" of "Application Portfolio Assembly"
- Application Portfolio Assembly = Functionality mapped to Business Needs and Governed by Change Management

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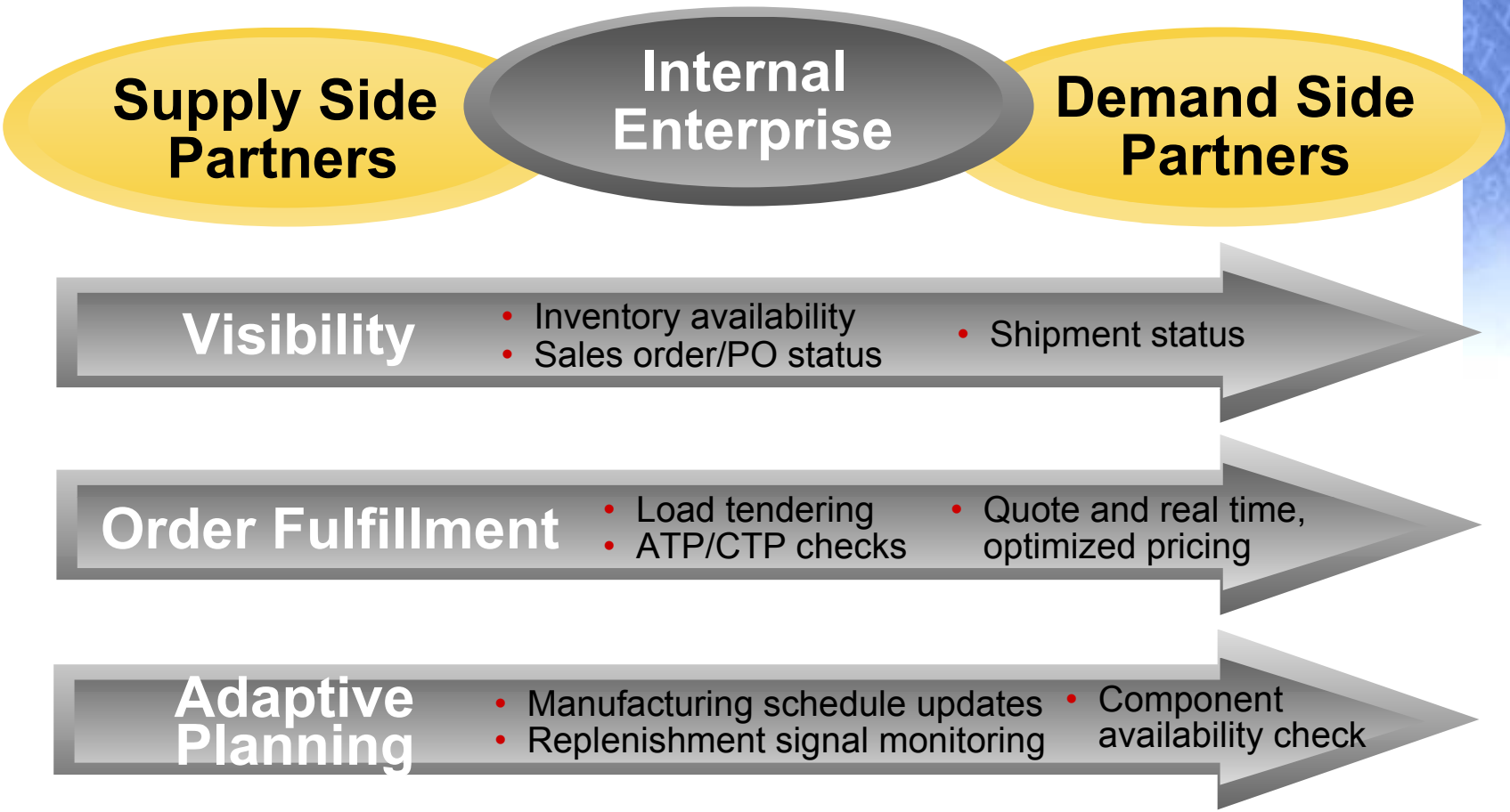
# Major Drivers of Portfolio Assembly

## Movement towards multi-enterprise exchange of real-time data and services



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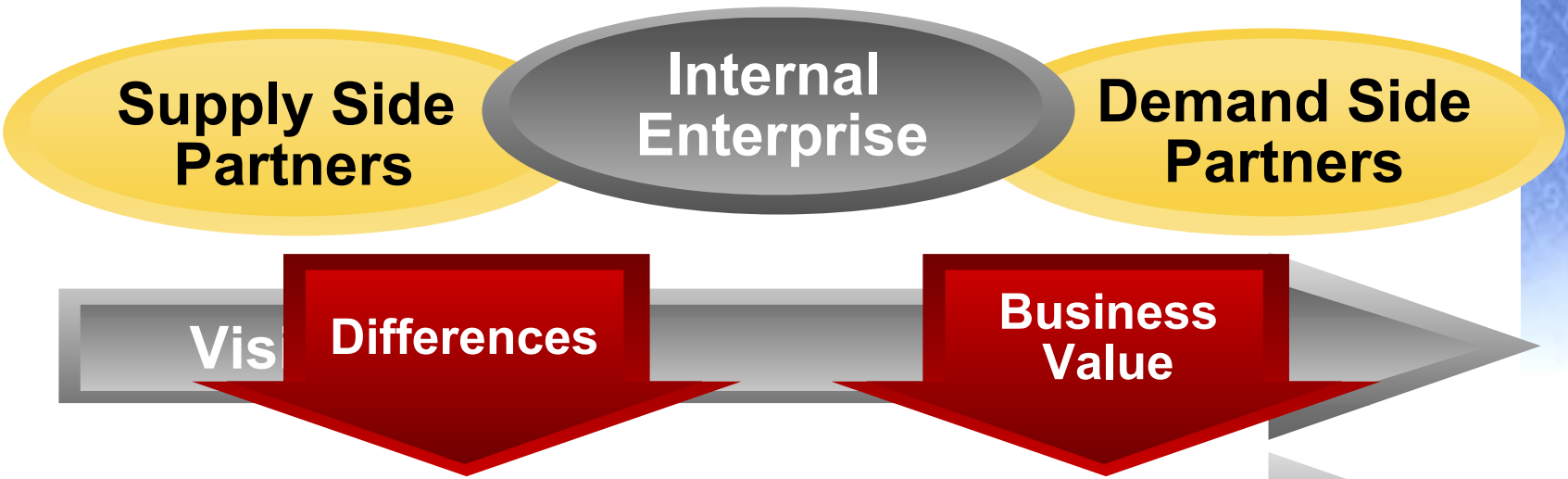


- Partner system act as one (inter-operability)
- Real time requests and responses
- Faster exception/disconn detection

- Faster, more accurate commitments
- Faster exception detection
- Reduced buffer stocks



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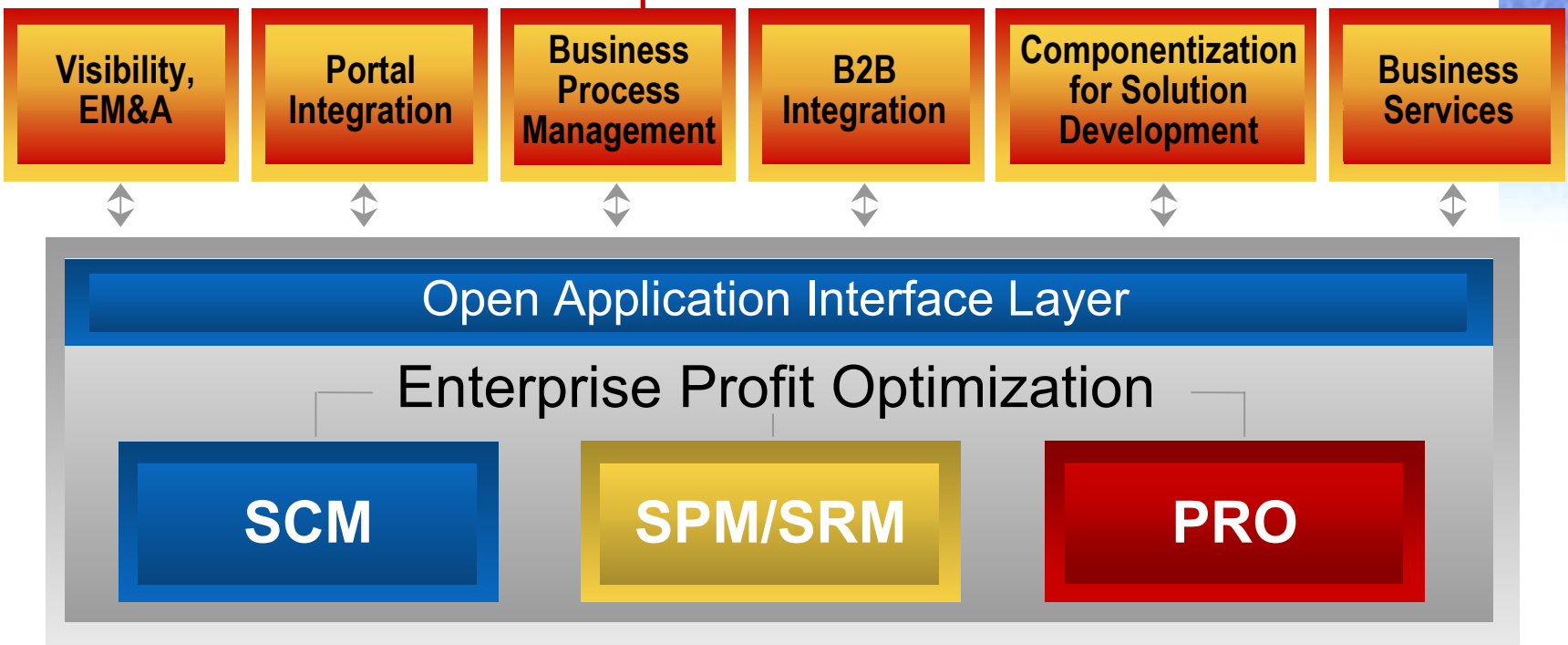
# Technology Strategy

Application Portfolio Assembly
With open architecture within the applications to support a broad portfolio of services:



# But…How Does It Get Done



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# You Must Execute These Steps

- Determine the Business Goals and Objectives
- Develop the Business Strategy and Plan
- Determine the Supply Chain strategy to support the business plan
  - Develop the supply chain plan
  - Develop the technology plan to support the supply chain plan
  - Develop the organizational plan to implement, execute and manage
- Execute with conviction and confidence
  - *It's a journey not a destination*

# Then Enable The Plan With Capabilities

These capabilities support the supply chain strategy for the planning and execution of business operations:

- assembly, manufacturing, repair and overhaul operations
- delivery and transportation management
- customer service with optimized forecasting and distribution
- collaborative coordination of suppliers and customers
- pricing, budgeting and revenue management
- alert based management
- decision support capabilities
- visibility of extended supply chains
- Strategic materials sourcing

# Why These Solutions Work

- ☑ Commercial market experience since the late 1980's
- ☑ Continuous expansion of capability to support business needs
- ☑ Global companies with local/regional execution requirements
- ☑ World-class technology performance, delivery excellence, and customer support

# An Example of A Track Record of Experience

| | | Current # of Clients | Initial Release |
|---|---|---|---|
| **Demand Planning & Fulfillment Solution** | | **500** | **1993** |
| – Inventory Reduction | 30-50% | | |
| – Reduced Transportation Cost | 5-15% | | |
| – Revenue Lift | 0.25-1% | | |
| **Integration Capabilities** | | **220** | **1997** |
| – Reduction in IT Spend | 0.5-1.5% | | |
| **Master Planning & Production Scheduling Solution** | | **350** | **1998** |
| – Inventory Reduction (WIP) | 2-12% | | |
| – Direct Labor Cost Reduction | 1- 5% | | |
| – Planning Cost Reduction | 2- 4% | | |
| **Delivery Management Solution** | | **340** | **1994** |
| – Reduced Transportation Cost | 8-50% | | |
| – Reduced Carrier Cost | 4-10% | | |
| – Reduced Freight Payment Cost | 10-50% | | |
| **Network Optimization Solution** | | **100** | **1996** |
| – Inventory Reduction | 2- 8% | | |
| – Reduced Transportation Cost | 5-15% | | |
| **Collaborative Services Solution** | | **100** | **1995** |
| – Revenue Lift | 1- 5% | | |
| – Inventory Reduction | 10-30% | | |

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# Case Studies

Canadian Tire
Boeing Rocketdyne
Seagate



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# Canadian Tire

## Challenges

- Largest hard goods dealer - 450 stores
- 85% of 30m Canadians live within 15mins drive
- 70,000 SKUS
- 2.6m square feet material handling facility, 60,000 outbound loads/year, 280 trailer loads & 370,000 cartons/day

## Solution

*Supplier collaboration*

- Statistical forecast
- Promotional life forecast
- Dealer order holdings

## Business Benefits

- Improved service levels at store by 25%
- Lowered inventory levels by 7%
- Inbound service level improvement of 20%
- 80% reduction in PO lead-times (from 46 days to 15)

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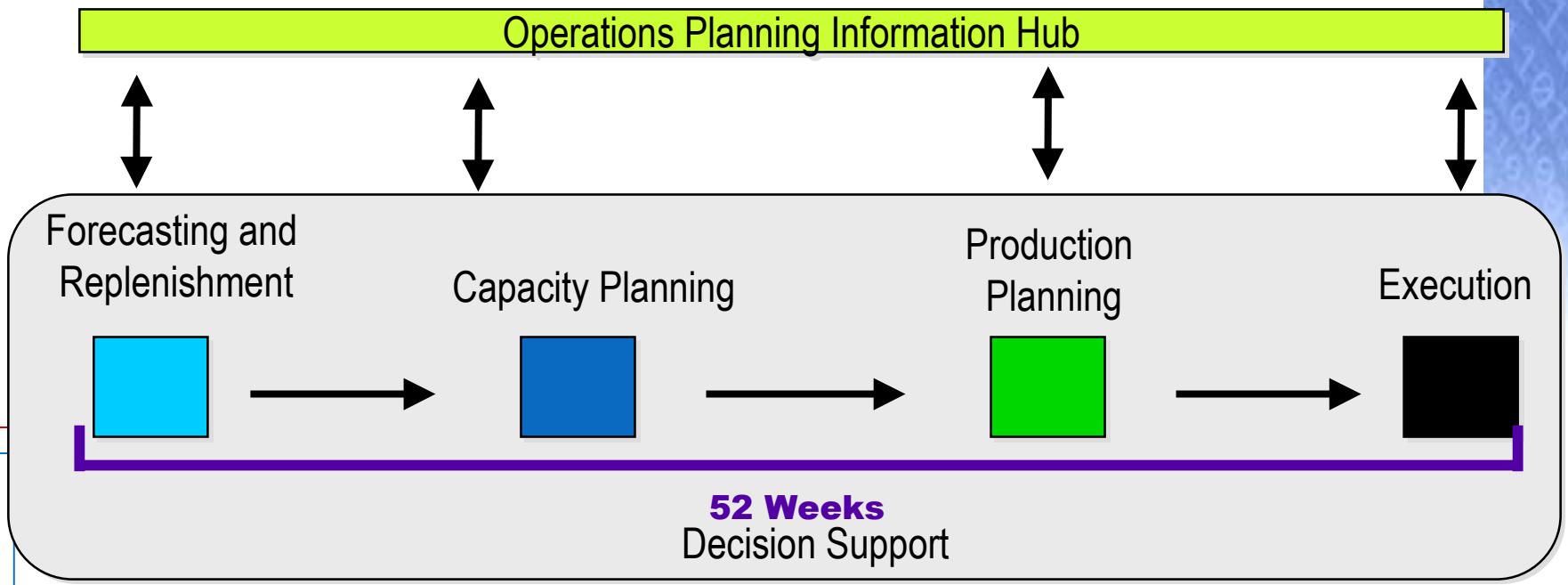
# Operations Planning Process




Supply Chain Training and Development

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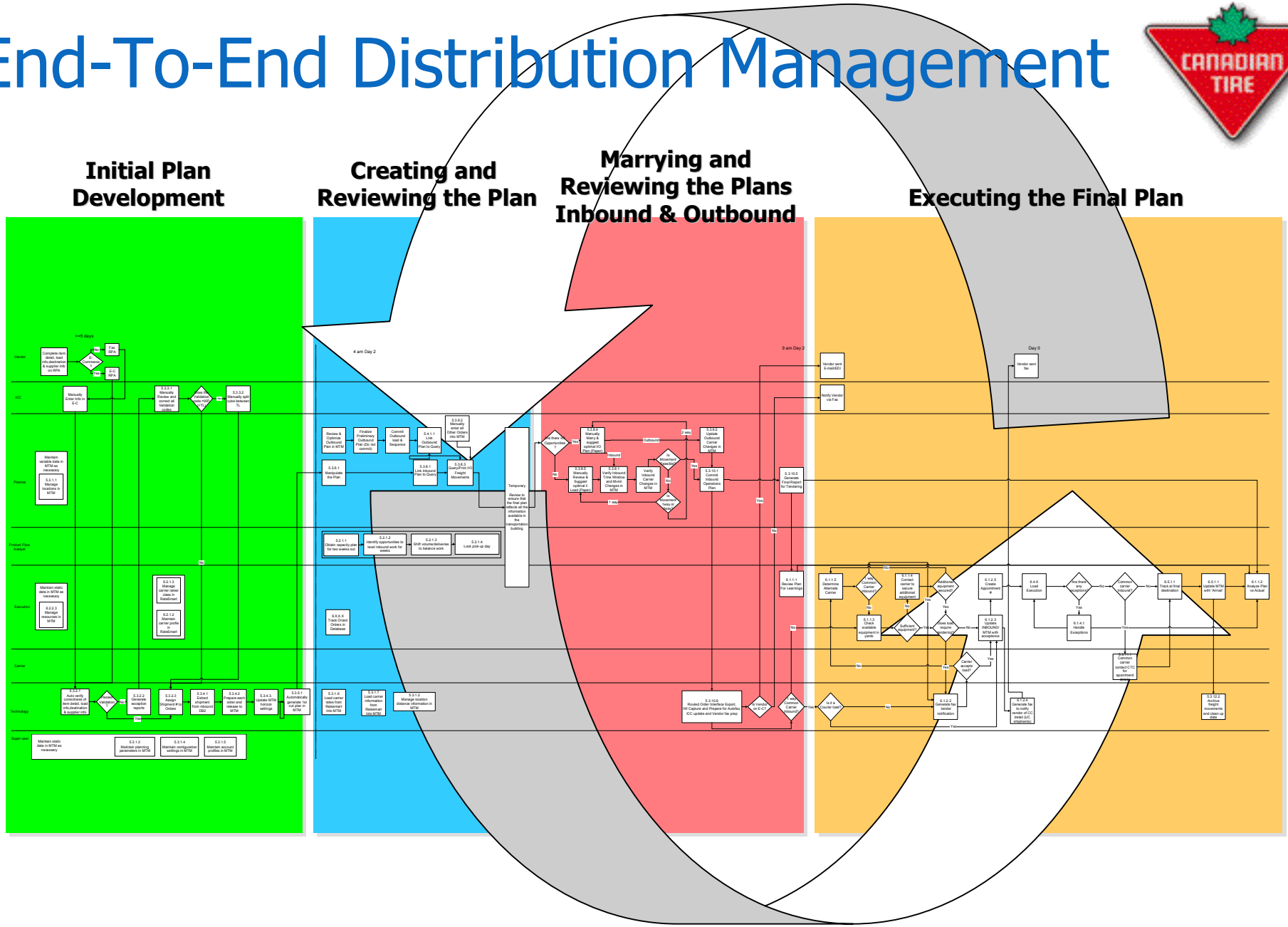
# End-To-End Distribution Management



# Boeing Rocketdyne

## Challenges

- Increase productivity
- Eliminate wasteful activity
- Synchronization

## Solution

- Production Planning & Scheduling
- Phase One
  - Finite scheduling of all released work orders

## Business Benefits

- Improved effective resource utilization (50 -300%)
- Increased throughput with same resource base (60%)
- Reduced cycle time (30%)
- Reduced product cost
- Reduced support cost
- Improved predictable execution to plan
- Constraints identification and reporting
- What if simulation capability

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# Seagate's CSM

## Challenges

- Highly competitive market for disc and tape storage devices
- Wide customer application from personal computers to high end servers
- Lost sales through non-availability of product
- Proliferation of part numbers
- Limitations of legacy systems

## Solution

- Component supplier management solution with increased scale and capability
- 4000 worldwide users
- Integrated to: Oracle Manufacturing, SDRC PDM,MCAD
- Single point of management for corporate part numbers

## Business Benefits

- Expose strategic sourcing opportunities
- 84% reduction in direct material part numbers
- $17M savings in procurement and engineering

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# What Should Be Considered

- **Consider current implementations as standard templates for wholesale and retail level logistics**
  - supports the collaboration already underway between Navy Supply and the DLA
  - templates support configuration to individual service needs
  - templates support rapid implementation methodology
- **Inter-service/inter-agency weapon system collaborative planning environment**
  - phase II to include key common suppliers
- **Customer Service Management**
  - utilize supply chain planning and delivery management capabilities to optimize customer service

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# What Should Be Considered

- **Supplier Relationship Management**
  - component management
  - strategic sourcing and rationalization
- **Maintenance Repair and Overhaul**
  - integration of the repair process to the planning process
- **Utilize pricing capabilities to optimize target pricing for calculation of surcharge**
  - developed in phase through item segmentation process
- **End to End Distribution Management**
  - expand the delivery management capabilities of the Navy solution
  - consider as visibility and control of the distribution system
  - supports Homeland Security efforts

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